1: Lorimer T-3 (1920-4; 1934-5) 1938 AV7 Burusho AV7

a miserable ten—none of your 'some thirty, some sixty, some an hundredfold'—while lucerne only gives three crops. 243

'The Hunzukuts' main food is bread, of which the housewife makes a large variety, from the leavened wheatened cake with butter for feast days, the unleavened flapjack of wheat, barley or blended flours for everyday, to the bitter buckwheat scones of leaner times. Milk is not an article of diet; the animals yield little at the best and none at all when their own offspring is weaned. Such milk as there is contains little fat content, which is not to be wondered at in view of the food on which the animals exist; it is converted into butter, curds and such preservable forms. Butter is stored in birch-bark wrappings beneath an adjacent water-channel and broached only on festive occasions or for the entertainment of a guest. Meat is tasted at most twice or three times a year, at festivals or on some day of domestic rejoicing, a wedding or a birth, and then it will be 'some tainted wether of the flock, meetest for death' who supplies the sacrifice. 262 234

The womenfolk tend small vegetable plots in the corner of a field or separate garden, where carrots, turnips, marrows, gourds and half a hundred kinds of humble 'greens' are grown, and a few plants whose leaves or seeds are esteemed for flavouring, along with a few tobacco plants for the men's pipes. After grain and greens, the essential item of Hunza diet is the apricot, fresh in the early summer and dried during the rest of the year; mulberries, fresh and dried, come next in importance, then a few apples, pears and peaches (these little valued because they will neither keep nor dry) and a few grapes for such relatively well-to-do houses as can afford space and water to grow them. Grapes ripen too late to be dried into raisins and the small quantity not consumed fresh is converted into light wine, brightening the winter days for those who have it, and drunk within a couple of months of manufacture. The apricot has yet further uses. Its kernel yields the oil which lights very modestly the winter nights. The Burusho woman is said to refuse, most wisely, to live above the level of the ripe apricot (say 9–10,000 feet). This is, I suspect only a base pretext of her husband's for refusing to live at these altitudes himself. Be that as it may, the upper villages of Hunza are almost exclusively inhabited by immigrants from Wakhan accustomed to a treeless existence and a diet of barley only. Grafting fruit trees is an art thoroughly understood. The above-mentioned fruits supply the only sugar which the Hunza people know. 244 262 246 [273] [354] 361 245

Despite all diligence in tilling the ungrateful soil, despite the utmost 262

2: Lorimer T-3 (1920-4; 1934-5) 1939 AV7 Burusho AV7

342 it, exactly over the main store-room below. There is no parapet, only a tiny raised rim to direct the rain into a small gutter-hole, on the rare occasions when there is rain; but it has a fringe of cut thorn bushes arranged round the edge to prevent an enterprising goat jumping across from the next-
351 door roof not many feet away. I didn't, however, go up on to
296 the roof, but on into a larger courtyard where there was a pool in the corner at which their washing is done. They would not dream of polluting the running water by washing themselves or their clothes in it as it flows by; they draw off what they want for these purposes into a separate pond of their own.
351 Then under a large shady tree there was a raised stone plat-
513 form which acts as a "sofa" by day and as a double or treble or quadruple bed by night—for, except in the depth of winter, nobody sleeps indoors. There was another raised platform, with a wall at the back and open in front and sides, roofed in for another sleeping place. It had a railing along under the roof, and over this were hung all sorts of padded quilts, homespun
[136] blankets, sheepskins, etc.—the family bedding. All the bedding is taken out and hung up every day, which helps to account for the complete lack of vermin—which I confess came to us as a happy surprise. In all our year in Hunza we saw only *one* flea, and that, as David said, was emphatically our own!

245 Round the corner from these sleeping places I got into a
312 walled-in shady garden full of fruit trees—apples, mulberries, peaches, apricots, and vines. It is incredible how luxurious mere *shade* is at such a temperature. It wasn't remotely like a garden in our sense. The earth was bare without one blade of grass or green, and was all cut up into little beds round each precious tree, with banks between them, so that the water could be directed to each tree as desired, when it was No. 1's
514 turn to have water at all. In the far corner of the garden was
343 a neat little circular "open-air pulpit." We had seen these pulpits dotted about, but—stupidly—did not at once guess what they were for. Coming straight from Kashmir, where the approach to each homestead is ankle deep in filth, or remembering Arab habits in Iráq, we never expected that we should find in Hunza a people as scrupulously decent as ourselves in

all appeared to us to suggest Persian inspiration. I heard one lady say with regret for a golden past: "What is the world coming to? Why nowadays the very peasant girls embroider silken caps for themselves!"

True enough; now that a little money filters into almost every home the women can get hold of coloured silk from India or Kashgar, and it was a common sight to see girls and women open a tiny home-made bag that hung on their tunic, and take out a strip or circle of calico, a needle, and a bunch of silk, and continue work on a dainty cap. The threads of the cloth were carefully counted and the design traced out in black thread. The silks they used were unspun, clinging masses that I found impossible to handle, and how they manipulated them so skilfully with fingers roughened, you would have thought, by field work, I could not divine. For about 1s. 6d. they can buy enough silk to cover one cap with minute embroidery, and they blend their colours, red, blue, green, orange, purple, yellow, and black, with unerring taste. We laid in a store of their favourite shades so that on occasion we could make an acceptable gift to a bride preparing her trousseau.

After a first experience of trifling gifts of balls and combs we had decided that it would be a crime to spoil the simple, spontaneous kindness of the children or their parents by indiscriminate giving. So we restrained a longing to distribute even sweets and pins, and only made an occasional present on very special occasions or for very definite services rendered. On the other hand, we made a note of such things as would be useful and acceptable, and gathered a hoard of them for our ultimate visits of farewell.

Amongst the women's crafts I have already mentioned the neat little "ashtrays" they conjure from the residual mush of apricot kernels after they have extracted the oil. Washing is amongst them a simple matter. Having no fat, they can make no soap, but there is a plant, called *himan*, which they grow amongst their vegetables, the seeds of which when pounded yield a delightful soapy lather. This is used for special washings only. Every-day cotton clothes are simply rinsed in cold water, flung on a flat stone and beaten with a wooden mallet. When

Chapter 23

WINTER AND THE "GREAT COLD"

132 No climate could be more delightful than the autumn and early winter of Hunza, from October till far on in December, and the Burusho make the most of these bracing, genial days, hurrying to get through every sort of outdoor job before the six or eight weeks of the "Great Cold."

245 Not by any means every household can spare water, manure, or space for a vineyard, but those who can value not only the fresh grapes which ripen later than all other fruits, but also the home-made wine which helps to brighten the cheerless 251 winter days. Unfortunately, by the time the grapes are ripe, the sun has already lost its heat and raisin-drying is impossible. At least this was the only plausible explanation we could get for the fact that the Hunzukuts who dry their mulberries and apricots do not make raisins.

The vines are trained over low pergolas only 3 or 4 feet high, less frequently allowed to climb up living trees. Since the Hunzukuts greatly value shady sitting places we wondered why they did not go in for loftier pergolas like those the Persians love. The explanation is cruelly simple—they cannot spare the extra length of poles.

There were not many vineyards in Aliábád, but we located two favourably situated ones and paid several visits to each. One was many hundred feet down, at Gulkhan, below the old fort. Though the vine leaves were still green, every bunch of 273 fruit had been already cut when we came down to see the wine-making. Under the roof of an open-faced shed were three "mangers," as it were, set side by side, the two end ones stacked high with ripe grapes. There must have been 3 or 4 cwt. at least in each. The centre one was only partially full.

233 any wage in our sense of the term, but that he would certainly be getting one or two free meals a day, and thus sensibly reducing the rationing problems of his own home. Hunza sheep lamb twice a year, but the goats have kids once only, in the Spring. Khano's promotion to wage-earning status was a little sad for us, for we saw him much more rarely after that.

242 One fine morning early in March the apricot trees that line
245 the Dála just in front of our rest-house were suddenly invaded by the whole Dastagul family armed with long sticks, to the end of which a sharpened piece of curved iron had been attached. With infinite care they inspected every branch, and wherever they detected the nest of an insect they snipped down the twig on which it rested. These nests were small, cocoon-like things only about an inch long, with a nasty little grub inside. The nests clung very tight to their hospitable perch, and it was often necessary to cut quite a biggish spray in order to secure them; each was diligently collected and borne home to the fire. We were not qualified to identify the pest on which war was being waged, but it was reported to devour both leaves and fruit if not destroyed. All through the country every single apricot tree is scrupulously examined and cleared—there must be thousands. We certainly did not later see a single one that seemed to be suffering from insect attack.

563 About this time we made another addition to our re-
167 tainers—a dear old grey-bearded man with the jolliest bright
361 eyes and a merry, happy smile, but not a tooth in his head, was roped in to work at Wakhi. The Wakhis, as I have said, are immigrants into the north of Hunza from the Wakhan districts of Afghanistan. They have settled in various places above the level at which the Burusho themselves care to live. Hunza men will tell you that they cannot induce their womenfolk to live where the apricot will not ripen. I suspect, however, that the men are just as unwilling to forgo their trees and wheat and fruit, but Adam-like prefer to blame their mates. The higher villages of Hunza are therefore inhabited almost wholly by Wakhi-speakers. Being unaccustomed to wheat, apricots, or

2: Lorimer T-3 (1920-4; 1934-5) 1939 AV7 Burusho AV7

the generous givers. How petty a return was a small cash gift to the child who brought them!

At last, as March drew to its close, the apricot buds were reddening and swelling, and the most glorious season of the year from the scenic point of view was at hand. No one who has not seen Hunza, its fields carpeted with new green, its orchards clothed with blossom and the snow mountains towering behind, can form even a feeble picture of its loveliness. The sad thing was that we were going to have to forgo the sight.

The next door valley of Yasin is the home of the only extant dialect of Burushaski, and if our work on the language was to be at all complete we must go and spend some weeks there, making a study, however sketchy, of "Werchikwár." Many reasons made it advisable to devote April and May to the job, of which one was that we should thus pass through Gilgit while the annual Jalsa was on. Every year all the Chiefs and Governors of the Agency gather in Gilgit for a kind of Chiefs' Conference *cum* Ascot week, over which the Political Agent presides, and since Major Kirkbride had hospitably invited us, this would give DL an opportunity of meeting old friends of his official days whom he could not hope to visit in their own provinces.

When I say "next door valley" I refer to the geographical position of Yasin on the map. The great ranges that intervene between Hunza and the Yasin valleys are, however, impassable even for goats, and in order to reach Yasin—only some fifty miles distant as the crow flies, if any crows do fly over—we should be obliged to travel down the Hunza river to Gilgit (a four days' march at our modest pace) and five days' up the Gilgit river to our goal. With much reluctance we prepared to mobilize and bid Hunza a temporary farewell.

First, however, there were the celebrations of Nauroz to see, which, owing to the unexplained originalities of the Hunza calendar, fell some ten days before the correct date of the Spring Equinox. Again, as for the Bopfau, the Mir worked magic on the weather, and after several cloudy, gloomy days

2: Lorimer T-3 (1920-4; 1934-5) 1939 AV7 Burusho AV7

countryside was a hive of industry. We missed the larger animals and learnt that they had already been taken up to the *tér* for the summer, while the tiny lambs and kids who were being carefully shepherded about to get what scanty grazing they could find without trespassing into the springing crops, demanded the unceasing vigilance of their small guardians.

The most noticeable new phenomenon was the constant stream of people, men or women, stooping under huge bundles of greenery till they looked in truth "like trees walking." We had come back to find the poplars well clothed and bushy (for poplars), giving an unwonted air of luxury to the landscape, but now they were being ruthlessly stripped to provide fodder for the animals, half starved throughout the winter on a diet of dry leaves. Poplar, willow, and *gindáwer* are all laid under contribution, but the new fodder has to be very carefully issued at first lest the poor beasts should perish of its unaccustomed succulence. I stood one day watching and photographing a minute human insect at the top of a 50 or 60 foot poplar skilfully stripping it of its spring glory and leaving only the tiniest green tuft at the top. A whole handsome row were about to be similarly shorn. In a moment of thoughtlessness I said to the peasant at my side: "They look so lovely, it does seem a pity. . . ." He turned on me almost fiercely: "What, Mother? Would you starve our beasts for the sake of a poplar tree? The leaves will come again next spring. There is no cure for a dead sheep." I stood rebuked.

No. 3 had been laying out a new vegetable plot. Apicho showed me the various beds ready for beans, scarlet runners (which here have yellow flowers), marrows, and greens, but confessed that manure was their great problem. They have only one cow, poor devils, and with the best will in the world one cow cannot produce enough.

The end of May is the season when new saplings of poplar, willow, etc., are planted, and we occasionally met people carrying off bundles of them to set in place. The mills were in action again, and such fortunate folk as had a little grain still left from their emergency store—not, after all, exhausted by weddings or funerals—were carrying pathetically small bags of

it to be ground.

2: Lorimer T-3 (1920-4; 1934-5) 1939 AV7 Burusho AV7

THE FIRST OF THE HARVEST

Windy weather was knocking down unripe mulberries in alarming quantities, which were incontinently guzzled by the goats and sheep.

By June 9th ripe mulberries were reported from Ganesh and Hasanabad, some hundreds of feet below us, but we had to wait another three weeks for ours.

One afternoon we were out on the hillside and stopped to watch a group of boys playing a complicated game of *bada bada* with a lot of small stones cast into twelve little holes in the ground. It was roughly equivalent to some of our games of marbles, and thinking of a large consignment of these which we had brought with us for future gifts we ruefully realized how useless marbles would be in a country where there are not six inches of smooth, level ground. As we sat trying to master the rules of *bada bada* Gulo crept up alongside me and slipped her hand confidentially into mine, whispering "Our pussy cat has had a confinement," using for fun the same term as she would have applied to her mother, and not the word suitable for cats. "There are three kittens, and they opened their eyes yesterday; do come and see them!"

When the game was over we accordingly started crosswise downhill to No. 3. I halted at the door to make sure that Zénába was prepared to endorse the impulsive invitation. She was sitting crouched by the hearth boiling the greens for dinner and jumped up with delight to bring us in. We squatted down on a sleeping-bench, from the back of which the children produced a round fruit basket in which the cat was cosily curled up. She was evidently accustomed to seeing her babies tenderly handled, for she let us take them out without other comment than a loud purr. Dear little furry things they were, about the size of small mice, and Gulo bubbled over: "She made first the black one and then the white one and then the yellow one—and that was all." Meantime, in addition to Kaníza and Apícho, a strange young man had drifted in to see what was going on, and presently Father arrived and we all chatted together very gaily. Laughing somewhat apologetically, Zénába confessed that she had drawn on the emergency reserve to make some *daudo* (a sort of porridge with butter) for pussy

2: Lorimer T-3 (1920-4; 1934-5) 1939 AV7 Burusho AV7

THE FIRST OF THE HARVEST

Men left at home in the village were now making pilgrimages towards the *tér* to fetch down the manure that their brothers up on the mountain side with the animals have been scrupulously collecting. They usually arrange to meet half way, the village brother taking up any supplies the other may need and the brother of the *tér* bringing down not only manure but butter and *brús*, a kind of preparation of dried curd not unlike cream cheese. The lads up at the *tér* have rather a jolly time. They take up only their oldest clothes, for the life is rough and the work is hard. Anywhere that there is a scrap of suitable ground they plant a little barley, harnessing themselves to the plough so as not to put work on to the horses or oxen they may have with them, who are considered to have earned a holiday. Each day at dawn they loose their animals, but keep a careful eye on them, and sometimes have hair-raising adventures in rescuing a beast which has fallen down a cliff. There used to be considerable danger from wild animals, but nowadays there are few of these surviving. Any family that lacks a spare son to take the animals up entrusts them to the care of some other, after a rather touching little ceremony in which the beasts are solemnly committed to the care of their new master, who is at the same time given a certain amount of grain with him as part of his fee. Milking, making butter, collecting the manure, tending the barley (if any), cooking their own food, corralling the animals at night, etc., occupy the herds the greater part of the time, but they find leisure enough for various games and feats of skill.

Every now and again they decide to supplement their scanty rations—the village can spare little enough to send with them —by the sacrifice of a goat and a feast of meat. The donor of the beast plays for the evening the rôle of Mir, appoints another as his Wazir, and they play-act their several parts with gusto. It is frankly admitted that the animal sacrificed to make this holiday usually is one of those whose owner is not present. When eventually the boy returns, minus one of the animals for which he was trustee, he formally announces the regrettable "loss" to its owner. The nature of the catastrophe is fully understood but not crudely stated. A wise owner is

2: Lorimer T-3 (1920-4; 1934-5) 1939 AV7 Burusho AV7

133
245

1. Rakapóshi in summer from Aliábád. Apricot trees in foreground. (*See p. 80*)

PLATE XXII

493

2. The sole type of wheeled vehicle in Hunza; a barrow used only in levelling fields.

(*See p. 211*)

[Facing P288]

Water rights are regulated by law and a man can use the water from the conduit that passes his land at certain definitely established periods. The flow or shut-off is controlled by placing a large stone or rock at the opening of the channel into the individual's waterway. It may sound a bit baffling to the average individual, but upon viewing it and examining it, it is easy to understand and, what's more important, it is simple and practical.

Nowhere did I see these waterways covered or encased in pipes—although they did in many places run under the roadway.

As their water supply is glacier-fed, there is never any danger of a supply failing . . . at least, not in the imminent future. However, in cloudy periods the flow slackens and an extended cloudy period causes a severe water shortage.

Lest you get the idea that these conduits or waterways are a simple matter, I want to assure you that they are a marvel of engineering. Further, when you consider that the first one was built about 1860 without any man made tools or iron or steel, you can then believe what a difficult and gigantic undertaking it was. It is a monument to their industry, intelligence and foresight. At least now, they have iron picks with which to dig, rather than having to use ibex horns.

Here I want to mention very definitely that the same type of waterway exists on the other side of the river . . . that is, in Nagir territory.

They do not, in any sense of the word, have orchards as we know orchards in the West, because they don't have a piece of land large enough or flat enough to compare with what we know as an orchard. In the West orchard sites are usually selected with the premeditated view of providing excellent drainage. There-

245 311 fore, knolls or rolling lands are preferred and gravelly, sandy or light loam soils are chosen.

There are neither rolling lands nor tilthy knolls in Hunza. Here they have to take what they can get and make the best of it. The precipitous bits of arable land are terraced to prevent erosion and the flat pieces, such as there are, create no drainage problem because there is no danger of too much rain.

You will seldom see more than a few dozen fruit trees in one group or area. They are scattered here, there and everywhere and are planted only where and when they can grow to best advantage.

I would also like to mention that fruit and walnut trees are found growing almost everywhere along the roads or trails in the populated area, so no bit of arable land, no matter where it is found, is wasted.

245 I do not know if there is any dispute as to who owns the crops but all the way from Gilgit to Altit I did not find a bit of ripe fruit on the trees—which means most clearly that somebody harvests the crops at just the right time or when the fruit is at or about proper maturity.

433 251 From some of the larders that I examined, I gathered that they certainly wouldn't have any overabundance and I further felt that, by the time winter and early spring passed and before the new crops were ready to harvest, some bellies might have thinned out and some more might even be hungry.

There was no reason for me to disbelieve the Mir when he said Hunza was the "land of just enough" but I still felt that, by the look of things, there would be many occasions when that "just enough" might have to be stretched a little. I was convinced that they certainly did not have too much of any food commodity.

142 The only two stout men that I met on my entire

7:Tobe C, T-3 (1959)1960 AV7 Burusho AV7
Hunza

sojourn through the area were the Mir's two brothers. The Mir himself, while not tall, is well-built and muscular, but shows no sign of fat.

The Hunzan fruit crops, from my careful observations, are as follows: apricots, Persian walnuts, mulberries, peaches, plums, pears and cherries. These were the sweet cherries. Nowhere did I see any sign of the sour or pie cherries.

Further, I noticed that all of the trees of this type that I saw were old. There were not many young trees, but that is understandable because they allow a tree to grow as long as it is able to bear fruit and they have little or no new space to plant young trees.

The walnut, the mulberry and the apricot trees grow to enormous size—far stronger, broader and heavier than they ever grow in America, although I have seen huge walnut trees and huge cherry trees in the Western world. Peach, pear, plum and apple are not grown nearly as much as the other kinds mentioned.

251 them. Even apricots that were bruised, damaged or even starting to rot were put out to dry. No treatment of any kind was used . . . just simply nature at work.

• 245 An apricot tree is a most valuable asset in Hunza. It [428] is a fact that an apricot tree is often willed to a daugh- [423] ter by parents and she can retain her rights to the tree and of course the crops that come from it for her lifetime.

In the Western world, the apricot is not considered a long-lived tree. In America, especially, it is considered not much longer lived than a peach or a plum and that means at the most, 25 or 30 years of life. When you take into consideration the truth that in Hunza apricot trees live to be well over 100 years, one wonders just where the difference comes in.

245 I really believe that I have the answer. In Hunza 242 apricots are grown from seed. No matter where I looked or sought I could find no tree nursery in either Nagir or Hunza. (I did find a small government nursery in Gilgit.) Therefore I would assume that every Hunzan farmer grows his own trees from the planting of the apricot seeds. No doubt some Hunzan farmers are more adept at this task than others and they probably grow a few extra ones and maybe trade them for other things with their neighbors.

But, as explained, the trees here last many, many years and the orchard space or land to grow them on is very limited. Therefore, there would be little or no demand for nursery stock. I inquired wherever I went concerning grafting and I tried to establish whether or not they knew anything about the process and how much they knew, but I came up against a blank wall. I could gather no definite information. That they know how to graft and are acquainted with the process, I am sure but to what extent it is used, I could not establish.

7:Tobe C,T-3 (1959)1960 AV7 Burusho AV7
Hunza

Now the case in the Western world and specifically in America is entirely different. Most of the apricots in America are positively grafted or budded on either plum or peach rootstock. This tends to make the tree bear a crop much sooner than it would on its own roots. On a plum root the apricot tree will grow in damp soils that would not be tolerated by the apricot itself or by the apricot grown on a peach root. However, the fact that the apricot is budded on peach or plum definitely makes its life span about 30 years at the utmost.

To the best of my knowledge and belief, nowhere in America can you purchase apricot seedlings, nor are they listed by any of the wholesale nurseries or growers. This would clearly indicate that apricots are invariably grown on a foreign rootstock as mentioned above. Undoubtedly this has much to do with the longevity of the Hunzan apricot trees. In Europe apricot seedlings are available and used as the rootstock on which to graft and bud apricots, which is as it should be.

However, from my investigations, I did learn that more than 20 different kinds of apricots are known and grown in Hunza. This does prove that grafting or budding or both are known in Hunza. The fruit that I did see and eat was by no means superior to that grown in the rest of the world. In fact, if anything, it was of inferior size and quality.

This may come as a shock to many people who believe that everything the people of Hunza do is superior to that done anywhere else in the world. Unfortunately, I must relate things as I found them.

In America, for example, a farmer would not hesitate to remove a tree or even an orchard that was producing undersized or inferior quality fruit, because he's depending on his fruit for marketing purposes. Remember, too, in America size and yield are the two most im-

245 portant qualities desired by all fruit growers. The reason is obvious . . . because the consuming public will readily buy the larger fruits. The quality is practically always judged by appearance, not by its flavor.

For the moment I am using exactly the same yardstick in Hunza and it is upon that fact that I am making my comparison. I have discovered the reason why all travelers to Hunza report the high succulent good flavor of the Hunzan apricot, and the explanation is simple. Invariably, when you eat an apricot in Hunza, it has been tree-ripened or you pick it directly from the tree and eat it and it is at its pinnacle of flavor and goodness, whereas in America, when you buy apricots, whether at a fruit stall or supermarket, that selfsame apricot might have been picked two weeks prior when it was green and ripened artificially or at least ripened away from its parent. Therefore, no comparison in flavor can be made.

Another valid reason for the popularity, or should I say necessity, of growing apricots in that mountainous region is because the apricot is one of the first trees to ripen its fruit. Apricots as a rule mature with cherries. However, the cherry requires a much shorter period from blossom to fruit and to make up this period, the apricot blooms very early. In fact, it is generally conceded to be the first of all tree fruits to show its flowers. A few warm sunny days in the early spring will bring out the apricot blossoms in their full charm and beauty.

It is seldom that they get through their blossoming period without frost of lighter or greater degree striking them, whether it be in Hunza or Niagara. But the apricot blooms, even though beautiful and tender of look, are really rugged and hardy, can take the cold weather and mature large crops of delicious fruit in spite of the chilly, frosty weather at blossoming time.

7 Tobe C, T-3 (1959) 1960 AV7 Burusho AV7
Hunza

Among people—yes, even experienced old-time gardeners and orchardists—there are many who believe that pollination by bees is required in all cases to set a crop of fruit. For many types of fruit and plants, this holds true; pollination by bees or other insects is essential. But in the case of the apricot and many others, wind pollination is the means that nature employs, and actually it is safer and surer than pollination by insects. Rain is also an effective pollinator, contrary to many people's conception and belief. I believe I would be safe in stating that wind pollination is the means of fertilizing more plants than can be claimed for bees and other insects combined.

All Hunzans own their own land and house. They pay no rent or taxes. Each citizen does his share of road building, taking care of the water channels and maintenance. The Mir leases his land to various individuals, most of them young people who as yet own no land of their own, or those who have insufficient for their needs. They pay him by means of services rendered and shares of the crops.

7:Tobe C,T-3 (1959)1960 AV7 Burusho AV7
Hunza

roasting or broiling, in Hunza most of the foods are eaten raw or lightly cooked.

To me, at least, the reason was plain and clear . . . they have little or no fuel. Coal is unknown, wood extremely hard to get . . . they have to go a long way to find a bit of forest or woodland. I saw practically none in the Hunza area. In another area I visited—Punial—one could see a few trees and copses that represented their woodlands. But timber suitable for firewood was not within reach of the people of Hunza. The bit of wood they did get would most likely come from an apricot or other fruit tree that had outlived its usefulness.

One of the most important reasons that apricots have become such an important part in the Hunzan diet is the fact that, by having found or created early, mid-season and late varieties, the Hunzan season for apricots extends two full months. This is a most vital consideration and is well worth remembering.

The staple oil or fat of the people is apricot oil. Ghee is used regularly, but butter can only be afforded and used on special occasions.

During the entire summer seldom, if ever, is meat served or seen on an average Hunzan's table, but during the three hard winter months (December, January and February) meat or chicken is sometimes used, if available (which is seldom). Even then, it is used only by the more prosperous or wealthy people. The poorer people can't afford to kill their cattle and use them for beef except on special occasions or religious holidays.

When I say the poorer people, I should qualify this statement, for there are no class distinctions whatsoever in Hunza. However, there are those families who own but one acre of land and there are those who own 10 acres. Therefore it is to be expected that there would be a difference in their living standards.

262 A farmer who owned and worked 10 acres of work-
556 able land might be able to afford to slaughter a sheep,
231 a goat or a bullock once a year. Yet this luxury could not be dreamed of by the farmer with but one acre.

273 Also, while winter lasts, a glass of wine made from
245 Hunzan grapes is enjoyed occasionally . . . but chiefly by the male head of the household.

415 Knives, forks and spoons as are used in the West are
[412] not seen in the average Hunzan home and even earthenware plates are rare. But cups and earthenware bowls are to be found in most homes. Wooden bowls fashioned out of walnut by the wood-turner of the village are also used in many homes.

352 The rooms are quite bare in most homes. Furniture is a luxury and a rarity. In the homes there are found usually a chest, a chair or a couch and a table. Shelves to hold dishes are seen in most every home. Occasionally, a dresser or cabinet can be found. The floor in an average Hunzan home is an earthen one with a large
354 square hole in the center for the fire. Then, of course, there is a large square hole in the roof to allow the smoke to leave and to allow light to enter, for there are no glass windows. This is fully open in the summer but during the colder winter days the hole is kept
64 partly or almost closed. This is the chief contributor to the eye troubles which affect many people in Hunza, as mentioned elsewhere in this book.

439 At one time little or no money ever entered Hunza
437 and the meager trade that they did do with passing caravans was by means of barter. The caravans coming through from China would bring cooking utensils, cloth, silk, tea and other commodities. For these, the people of Hunza would trade some of their crops or would work as coolies, porters or bearers.

220 During the past few years a bit of money has come

123 241 177 huge fine quality products that I was told they were. I admit here further that I was in Hunza in July and the later, perhaps the better, varieties were not available or ripe yet. But upon questioning the various people, there was no information given to me that indicated the later maturing kinds were superior to the earlier ones.

So as in vegetables and grains, their fruit could be greatly improved by adopting some of the Western varieties. This could easily be done by having budwood sent to them and they in turn would graft this budwood onto their young stock.

I have made arrangements with the Mir of Hunza and the P.A. at Gilgit to supply them with this required grafting wood at the proper time, and it will be duly sent to them, so that in the future they may have some of the benefit of the West's hybridization and research program. I took along with me a few of the best budding knives that I could procure and I left two with the P.A. at Gilgit and the others with the Mir of Hunza and I explained their use.

245 In talking with the Mir about the planting of new varieties and improved strains, he claimed that his people did graft and seek new varieties and strains, but from the little time I had to inspect things, I did not see any young trees or any great number of grafts that would indicate this being a widely practiced policy. I found nothing resembling a nursery in Hunza or Nagir, but there was a small, unimpressive nursery run by the Pakistani government in Gilgit. Maybe this is the forerunner of bigger and better things to come.

241 [643] There appears to be no central source of seed supply in Hunza. It seems that each farmer saves seeds for next year's crops or barters with his neighbor. In some years, when, because of any one of many conditions

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that may exist or be created in an agricultural community, no seed is available, the Mir has been known to procure supplies from neighboring states and supply his people with sufficient planting stock.

While through the entire East cow dung and yak dung are used for fuel, in Hunza this is positively not true. The Hunzans are too intelligent to use the mainstay of their lives for fuel. Once it is burned it is gone; but if it is put back into the land, it is there to produce crops for another year. They show their intelligence, if proof of their intelligence is needed, by this one sound principle of self-survival in their means of agriculture.

However, in the more northerly sections of Hunza, closer to the Chinese border, they do use yak dung for fires because of the almost total lack of wood or other types of fuel. They just have to keep themselves warm during the winter.

Here is a list of the vegetables grown in Hunza—potatoes, turnips, carrots, beans, peas, lettuce, pumpkins, tomatoes, melons, watermelons, radishes, onions, cabbage, spinach, cauliflower.

In fruits there are mulberries, apricots, apples, pears, peaches, grapes, walnuts, almonds, a few plums and some cherries.

Grapes are grown fairly extensively because they can plant them against most any wall, as long as they have a bit of soil in which to gain a foothold for their roots. From these grapes they make their Hunzan wine.

They grow a few strawberries, but I could find no currants, gooseberries, raspberries—nor did they know what raspberries were.

The grains grown in Hunza, starting from the most important, are wheat, barley, rye, millet, buckwheat and a small quantity of rice. Some alfalfa is grown as a forage crop.

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However, I did stop often enough on plant examinations so that I was always a few miles behind my friend, Cec, who was not concerned with the flora. 123 137

I want you to understand that I did not do an exhaustive detailed study of the flora of the Hunza district. I am sure there are many, many more plants in the area than I have indicated or found. I just examined what I happened to pass and see. I definitely did not go out and search for specimens away from the beaten path.

You can take my word for it, the vegetation under any and all circumstances is definitely not spectacular. However, any of the plants that are found growing in this area most certainly should be hardy enough and virile enough to do well in most other parts of the arable world. 137

It is my belief that the flora of the Hunza Valley is neither varied nor numerous, apart from the fruit and nut trees which are in most cases not indigenous. The apricot, though, could be native to that part of the world . . . at least, that is what I gathered from my studies and observations.

Apricots were grown in the greatest number, followed by mulberry, walnuts, apples, plums, peaches and pears. Here and there I came upon a pomegranate tree. These, I am positive, are indigenous to the surrounding area, if not to Hunza. [245]

The trees that I passed most frequently on the roads and trails and in the towns were eucalyptus, willow, birch, poplar and the oriental plane, sometimes called sycamore and known in Hunza as the "chenar" tree. I believe these are all native to the vicinity.

I was disappointed, surprised and even shocked to find the area completely devoid of conifers or evergreen trees. I saw one pine tree in the P.A.'s garden in

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744 processes are unknown and unused: chlorination, pasteurization, hydrogenation, inoculation, fluoridation.

262 The single most important food, as used by the people of Hunza, consists of dried apricots and whole ground grain mixed together to form a toddy or a gruel. This is actually drunk cold and is enjoyed by all members of the family. It is usually partaken of during the late afternoon or early evening.

Their other important foods consist of the following: potatoes, garlic, beans, peas, carrots, tomatoes and some leafy vegetables. In fruits, they have mulberries, apples, walnuts and a few plums, pears and cherries. Grapes are used chiefly for making wine.

They grow a fairly broad selection of grains: millet, wheat, barley, rye, buckwheat and a little rice. Lucerne [231] or alfalfa is generally used for cattle fodder.

[245] The Persian Walnut is the chief nut grown in the area. Almonds are raised, and their cultivation is increasing. A fair quantity of apricot kernels are used.

Ghee is used for baking and as a spread on their chapatties or bread—the oven-baked loaf. Sour milk, buttermilk and curd are a regular part of the diet.

Meat does not form an important part of the Hunzan way of life.

Most foods are consumed raw. The lack of wood or other heating materials probably accounts for the paucity of cooked foods in their culinary art.

147 There are practically no cases of overweight among the people of Hunza. The importance of this factor cannot be overestimated.

000 The path to health is a simple, easy-to-follow road. It is the most natural way in the world to the people of Hunza. However, to follow a similar path in America would involve complications, difficulties and many frustrations.

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Hunzan fruits taste better than those of other parts of the world. Most travelers who reach Hunza invariably state that the apricots and other fruits found there are much better flavored than those found in other parts of the world. I did not find this to be true. 245

Because they do not grow fruits for export or shipping, they can be tree-ripened. Therefore they have a better flavor than fruit that has to be picked in a green or unripened state. It is this fact that makes many people believe that Hunzan fruits taste better than the fruit they are accustomed to eating.

I happen to live in a part of the world where fruit is grown extensively and I must state categorically that Hunzan fruit does not taste any better than that grown on the farms adjacent to my home. Here, also, it must be admitted that most of the fruit I eat, especially during the fruit season, is also tree-ripened.

The people of Hunza are ignorant and uneducated. From my association with the people of Hunza, I must state boldly that they are neither ignorant nor uneducated. 871

There are schools of the same type as our grade schools in every large center in Hunza. It is admitted that only the male children are taught in these schools and there is no formal education offered to girls. This school system is entirely free and has been in existence for more than 25 years. It is emphasized that the native language of the people of Hunza is Burushaski and it is an unwritten language. However, they teach Urdu, Persian and other essential subjects. The intelligence and the abilities of the natives of Hunza rank with those found throughout the world.

The people are fierce and dangerous. There have been only 3 cases of murder recorded in Hunza in the 682

584 Marriages are not arranged against
586 the will of either party, and although
divorce is legally very easy for men
593 or women, it is not common. Women
are neither abused nor overworked,
and the mother is the respected chief
of the house, as the father is of the
[581] farm. Marriage does not encompass
[562] companionship as we know it: men
spend their spare time in the company
of other men, and women visit exclu-
562 sively with other women. They hold
535 their dances on separate threshing
floors a half-mile or so apart, on the
same night, and woe betide the eager
teen-age boy who dresses in his sister's
clothes and sneaks into a girls' dance.

262 At the time of the Tumushuling,
[796] and only then, Hunza families
[231] butcher a sheep or two: cold weather
[251] preserves the meat for the few days
before it is all eaten—and it *is* virtually
all eaten. Even the long bones are
cracked to extract the last marrow.
After this taste of meat, the winter of
the dietary year sets in. Gradually the
supply of carrots and potatoes fails,
then the wheat, the barley, the dried
[148] apricots, and the tea. By springtime
the poorer folk may eat only once in
two days. No one starves to death, but
no one has enough to stop hunger.

146 The regular Hunza diet has no fats,
no animal proteins, no vitamin A, no
vitamin D, a deficiency of vitamin B,
and a serious deficiency of calcium.
Apricots contain some sugar and vita-
min C, but the poorer families are un-
● 245 able to raise large crops. (The size
556 of apricot orchards determines a
man's wealth and status.) Hunzas use
372 every bit of the apricot, as they do of
824 the sheep. They cut the pits from the
fruits, crack them, and remove the al-
[412] mond-like nuts. The women hand-
grind these with stone mortars, then
squeeze the meal between a hand-stone
[359] and a flat rock to express the oil. Apri-
cot oil is fuel for the saucer-shaped
lamps that illuminate their homes, as
lamps of this type have done since the
824 Bronze Age. The oil is very bitter, na-
278 turally enough, because of its high
content of prussic acid, fifty drops of
which are said to be lethal in about
[273] four hours. Men add a few drops, as
[262] bitters, to their wine, and occasion-
ally a despondent woman takes a dose
in order to commit suicide.

164 Mild cases of rickets and scurvy
146 are rampant every spring—not enough
to kill, just enough to loosen teeth,
cause aching knees, and deform ribs